IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

TELCORDIA TECHNOLOGIES, INC.,	)	**REDACTED PUBLIC VERSION**
	)	
Plaintiff/Counterclaim Defendant,	)	
	)	
v.	)	
	)	
LUCENT TECHNOLOGIES, INC.,	)	
	)	Civil Action No. 04-875-GMS
Defendant/Counterclaim Plaintiff.	)	
	)	
	)	
TELCORDIA TECHNOLOGIES, INC.,	)	
	)	
Plaintiff/Counterclaim Defendant,	)	
	)	
v.	)	
	)	
CISCO SYSTEMS, INC.,	)	
	)	Civil Action No. 04-876-GMS
Defendant/Counterclaim Plaintiff.	)	
	)	

OPENING BRIEF OF PLAINTIFF TELCORDIA TECHNOLOGIES, INC. IN SUPPORT OF ITS MOTION FOR PARTIAL SUMMARY JUDGMENT THAT THE '306 PATENT IS NOT INVALID AS ANTICIPATED OR FOR LACK OF ENABLEMENT

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I.   INTRODUCTION

Defendants Lucent Technologies, Inc. ("Lucent") and Cisco Systems, Inc. ("Cisco") have repeatedly asserted in these proceedings, both in their defense against Telcordia's infringement allegations and in their own declaratory judgment counterclaims, that Telcordia's U.S. Patent No. 4,893,306 ("the '306 patent") is invalid based on supposedly anticipating prior art and because the detailed patent specification somehow does not enable one of ordinary skill in the art to practice the inventions described in the asserted claims. But now that the expert reports are in and their sole expert on the '306 patent has been deposed, it is clear that those invalidity positions lack support. As a result, Telcordia is entitled to summary judgment on the defendants' invalidity defenses and counterclaims of anticipation and enablement with respect to the '306 patent.

Specifically, defendants' expert admitted that most of the references on which the defendants rely cannot anticipate the claims under the Court's announced claim construction. Partial summary judgment is justified as to those references on that basis alone. In addition, based on the report of Telcordia's expert and the deposition testimony of defendants' expert, there are additional reasons why those references do not anticipate the claims because they lack other features required by the claims.

Of the few remaining references that defendants can still rely on notwithstanding their admissions, one of them cannot anticipate the claims because the opinion of defendants' expert is actually based on a combination of that one reference plus another separate reference, instead of the disclosure in a single reference, as required to show anticipation. The final two references relate to similar prior art systems that do not operate as the claims of the '306 patent require

because they both permit empty packets to pass by data sources even when those sources have data waiting to be sent.

On enablement, defendants have simply done nothing. There is nothing in their expert's report regarding enablement, and there does not appear to be any evidence to prove by clear and convincing evidence, as defendants must, that a person of ordinary skill could not practice the claimed inventions in the '306 patent without undue experimentation.

II.   STATEMENT OF FACTS AND OF THE NATURE AND STAGE OF THE PROCEEDINGS

A.   Background of Proceedings Relevant to the Motion

Telcordia filed its original complaints in these actions on July 16, 2004, and filed its amended complaints on June 14, 2005. Originally, Telcordia asserted U.S. Patent Nos. 4,893,306 and Re. 36,633 against defendant Alcatel USA, Inc. ("Alcatel"), and the '306 patent, the '633 patent, and U.S. Patent No. 4,835,763 against defendants Lucent and Cisco. On July 18, 2006, the Court stayed the Alcatel case upon Alcatel's motion pursuant to 28 U.S.C. § 1659(a). (D.I. 218 in C.A. No. 04-874-GMS). The cases are not consolidated but are governed by a common Revised Scheduling Order (D.I. 83 in 04-CV-875 GMS and D.I. 72 in 04-CV-876 GMS)[1] and are scheduled for trial during the period of April 16, 2007 to May 25, 2007.

Based on the Court's June 22, 2006, claim construction decision, Telcordia determined that it cannot prove that any of defendants' accused products infringe any of the asserted claims of the '306 patent under the Court's construction of that patent. Nonetheless, defendants Cisco and Lucent continue to assert that the '306 patent claims are invalid under various theories

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[1] Hereinafter, citations to documents with docket item numbers in both cases will be in the form of the D.I. number for C.A. No. 04-875-GMS (the Lucent case) followed by the D.I. number for C.A. No. 04-876-GMS (the Cisco case).

originally raised in their pleadings and answers to interrogatories, including anticipation by certain prior art references and lack of enablement.

Following a September 18, 2006 teleconference, the Court denied Telcordia's request to have the court render the defendants' '306 patent invalidity counterclaims moot, granted Telcordia's request to file this motion for summary judgment with respect to the anticipation and enablement counterclaims, and granted defendants' request to file a motion for summary judgment on their best mode invalidity defense. This motion addresses those anticipation and enablement counterclaims.

B.   Statement of Facts Relevant to the Motion

The '306 patent covers an invention that allows different data sources providing data at different bit rates, for example, voice, video, and computer data, to share the same communication link using a technique the patent calls "Dynamic Time Division Multiplexing" (DTDM). *See generally* Exhibit A ('306 patent, col. 4, lines 39-47 and col. 5, lines 13-38). In DTDM, the source data is first arranged in the form of packets consisting of discrete blocks of data with a header at the front indicating where the data is being sent. As soon as a packet from any of the possible sources has been formed and is ready to be sent, that packet can be written into an even larger block of data, referred to as a "frame," for transmission over a communication link. The frames, which are continually being created, are divided into separate "overhead" and "payload" fields, which are arranged so that packets of source data can be placed in the payload fields. *See generally* Exhibit A ('306 patent, col. 4, line 48 to col. 5, line 7).

At issue in these proceedings are claims 1, 3 and 4.

Claim 1 provides:

1. A method for simultaneously transmitting data from sources having different
bit rates in a telecommunication network comprising the steps of:

generating a bit stream comprising a sequence of frames, each of said frames including a transmission overhead field containing frame timing information and an empty payload field, and

filling the empty payload fields in said frames with data in packetized format from a plurality of sources which have access to the bit stream including circuit or packet sources, such that data in packetized format from any of said sources is written into any available empty payload field of any of said frames for transmitting data from each of said sources at its own desired bit rate via said bit stream and for transmitting data from said plurality of sources simultaneously via said bit stream.

Claim 3 provides:

3. A method for generating a bit stream capable of transporting data originating from both circuit transmission and packet sources comprising

generating a bit stream comprising a sequence of frames, each of said frames including a transmission overhead field containing frame timing information and an empty payload field,

packetizing data from a plurality of sources having different bit rates and which have access to said bit stream including circuit transmission sources or customer premises equipment to produce data packets, and

inserting said packets from said sources into the empty payload fields of said frames such that a packet from any of said sources is inserted into any available empty payload field of any of said frames for transmitting data from each of said sources at its own desired bit rate via said bit stream and for transmitting data from said plurality of sources simultaneously using said bit stream.

Finally, claim 4 provides:

4. An apparatus for assembling a dynamic time division multiplexing bit stream comprising,

generating means for generating a train of frames wherein each frame includes a transmission overhead field containing timing information and an empty payload field,

processing means for processing data from a plurality of sources into packet format, and

inserting means for receiving said train of frames and for inserting each of said packets comprised of data from one of said plurality of sources into any empty payload field of any of said frames available to said inserting means to form said bit stream so that data from each of said sources can be transmitted at its own

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desired bit rate via said bit stream and so that data from said plurality of sources can be transmitted simultaneously via said bit stream.

The Court addressed the meaning of the disputed terms in those claims in its claim construction order, and several of those constructions are particularly important to the defendants' anticipation contentions with respect to all three claims.

In its claim construction order, the Court concluded that the term "empty payload field," which appears in all three asserted claims, means "a payload field that is empty of source data, but including bit signals of some kind, i.e. garbage bits." D.I.s 189 (Lucent) and 179 (Cisco) at 6, ¶ 27. By including the language proposed by defendants—"i.e. garbage bits"—in that construction, the Court limited the construction of "empty payload field" to fields having *only* garbage bits, and rejected Telcordia's proposed construction that would have permitted the payload fields to have other non-source bit signals.

The Court interpreted the term "plurality of sources which have access to the bit stream" in claim 1 and "plurality of sources having different bit rates and which have access to said bit stream" in claim 3 to mean "two or more sources that each insert data into the generated bit stream via its own tributary." D.I.s 189 and 179 at 6, ¶ 32. In that construction, the Court rejected Telcordia's construction that would have encompassed a system where multiple sources share a common circuit path to the bit stream.

Finally, the Court interpreted the terms "available empty payload field" of claims 1 and 3 and "an empty payload field of any of said frames available to said inserting means" to mean "an empty payload field that can be filled with a data packet from the source, among the plurality of sources, of the highest priority with a data packet ready to transmit." D.I.s 189 and 179 at 7, ¶ 35. Thus, a source with a high priority data packet that is ready to transmit must be able to use any available empty payload field.

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To support their invalidity positions, defendants offered the proposed opinions of their expert, Dr. Anthony Acampora. On June 28, 2006, Dr. Acampora submitted an initial report entitled "Expert Report of Anthony Acampora, Ph.D. Re: Invalidity and Unenforceability of U.S. Patent No. 4,893,306 (Chao)." *See* Exhibit B. After Telcordia's expert, Dr. Paul Prucnal, submitted his report pointing out the deficiencies in Dr. Acampora's invalidity and unenforceability opinions, Dr. Acampora submitted a "Reply Expert Report of Anthony Acampora, Ph.D. Re. Invalidity of U.S. Patent No. 4,893,306 (Chao)." *See* Exhibit C (Prucnal report) and Exhibit D (Acampora reply report). Dr. Acampora's reports are the only reports addressing validity of the '306 patent submitted by any of the defendants. As a result, defendants are limited to the invalidity opinions disclosed in Dr. Acampora's two reports and cannot later come up with additional opinions. Fed. R. Civ. P. 26(a)(2) (requiring an expert report that contains "a complete statement *of all opinions to be expressed* and the basis and reasons therefor" (emphasis added)).

In his initial report, Dr. Acampora expressed his intent to offer opinions that the asserted claims of the '306 patent are invalid as anticipated based on the following 11 references:

- J.O. Limb and C. Flores, *Description of FasNet—A Unidirectional Local-Area Communications Network*, The Bell Systems Technical Journal, Vol. 61, No. 7 (September 1982) (Exhibit E);

- Z.L. Budrikis and A.N. Netravali, *A Packet/Circuit Switch*, AT&T Bell Laboratories Technical Journal, Vol. 63, No. 8 (October 1984) (Exhibit F);

- J.S. Turner, *Design of an Integrated Services Packet Netowrk*, IEEE Journal of Selected Areas in Communications, Vol. SAC-4, No. 8 (November 1986) (Exhibit G);

- U.S. Patent No. 4,569,041, issued February 4, 1986, to Takeuchi et al. (Exhibit H);

- M. Beckner and S. Minzer, *A Tutorial on Asynchronous Time Division Multiplexing: A Packet Mode Access Capability in Broadband Interfaces to ISDNs,* Bell Communications Research, T1.D1.185-149 (November 1985) (Exhibit I);

- M. Beckner and S. Minzer, *Multiplexing Structures for Broadband Interfaces,* T1.D1/1/87-161 (April 1987) (Exhibit J);

- R. Boehm, Y.C. Ching and S. Say, *Rates and Formats for Fiber Optics Interfaces,* T1.X1.4/86-020 (February 14, 1986) (Exhibit K);

- *Data Communications—Facilities, Networks, and Systems Design*, textbook written by D.R. Doll, published by John Wiley & Sons (1978) (Exhibit L);

- Luderer et al., *Wideband Packet Technology for Switching Systems,* Innovations in Switching Technology / International Switching Symposium (March 15-20, 1987) (Exhibit M);

- Weinstein et al., *Multiplexing of Packet Speech on Experimental Wideband Satellite Network,* American Institute of Aeronautics and Astronautics (1982) (Exhibit N); and

- European Patent 0 179 979 B1 ("the Baran EP Patent"), issued on May 13, 1992 from European Patent Application 0 179 979 A2, published on May 7, 1986 and claiming priority to October 29, 1984 (Exhibit O).

Despite opining in his initial report that all those references independently and completely anticipated the asserted claims, in his reply report Dr. Acampora admitted that most

of them did not. Specifically, Dr. Acampora acknowledged that all the references lack certain

elements of the asserted claims when applying the Court's claim construction, except the Limb

and Flores reference relating to FasNet, the Budrikis reference, and the Boehm-Ching-Say

reference. Exhibit D at 2, 7-14. Dr. Acampora's opinion regarding the Boehm-Ching-Say

reference does not rely solely on the disclosure of that reference, but instead draws from

additional disclosures in another separate article (actually one of the Becker and Minzer

references Dr. Acampora originally asserted was a complete anticipation but now acknowledges

lacks all the elements of the claimed inventions). Further, Dr. Acampora's opinion ignores the

plain language of the Limb and Flores reference itself as well as the testimony Dr. Mark Garrett,

who worked on FasNet. Finally, Dr. Acampora's opinion regarding the Budrikis reference

ignores the clear teaching of that article as well.

Dr. Acampora's initial report also included a discussion of his "Section 112 Opinions,"

with subsections on "Written Description" and "Best Mode." Exhibit B at 59-68. His reply

report included additional views on "Best Mode." Exhibit D at 18-20. There is, however, no

mention anywhere in either of Dr. Acampora's reports of the enablement requirement of 35

U.S.C. § 112, or any detail on how the asserted claims of the '306 patent are invalid for lack of

enablement. As a result, defendants cannot present any expert testimony in support of their

original contentions that the asserted claims of the '306 patent are invalid for lack of enablement,

including the subsidiary issues of whether a person of ordinary skill in the art could have

practiced the claimed inventions without undue experimentation.[2] Since defendants have

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[2] In contrast, defendants' other expert, Dr. Grover, submitted a report on the '763 patent
that included an opinion that the claims of the '763 patent were invalid due to lack of
enablement.

advanced no other evidence on the enablement issue, summary judgment should be granted on this issue as well.

III.   SUMMARY OF THE ARGUMENT

Telcordia is entitled to summary judgment that (1) the asserted claims of the '306 patent are not anticipated by any of the references discussed in the expert reports submitted by defendants' expert witness, Dr. Acampora, and (2) the asserted claims are not invalid for lack of enablement. There are no genuine issues of material fact with respect to either of those issues, and Telcordia is entitled to judgment as a matter of law because defendants cannot prove, by clear and convincing evidence, that those references disclose each and every element of the asserted claims or that the '306 disclosure is non-enabling. Fed. R. Civ. P. 56(c).

Dr. Acampora originally opined that eleven references anticipated the asserted claims because every element of those claims is described within the four corners of each individual document. In his reply report, however, Dr. Acampora abandoned that opinion as to eight of the references, acknowledging that those eight references could not anticipate the asserted claims under the Court's claim construction ruling. As a result, there can be no dispute that summary judgment is appropriate as to those eight references.

The three remaining references also fail to anticipate the asserted claims. Dr. Acampora implicitly acknowledges that the Boehm-Ching-Say reference does not disclose all the limitations of the asserted claims because he is forced to rely on the disclosures in another reference, the Beckner Minzer Tutorial (one of the eight references now acknowledged to be lacking), that he improperly claims was incorporated by reference into the Boehm-Ching-Say reference. Dr. Acampora's effort to combine those two separate printed publications into one anticipating über-reference is legally incorrect. The Boehm-Ching-Say reference does not

"incorporate by reference" the Beckner Minzer Tutorial because it does not specifically identify portions of that second reference it intends to actually incorporate into its own disclosure as if fully rewritten; it merely cites to the second reference, which is insufficient to satisfy the standard for an effective incorporation by reference.

The other two references, the Limb and Flores reference regarding the FasNet system and the Budrikis reference, also fail to anticipate. Each system permits multiple sources to place data onto a shared communication line. However, in order to distribute the use of the shared line evenly among all the multiple sources, after a given source places a certain number of packets onto the shared line, that source is prevented from placing further packets onto the line even if it has data waiting to be transmitted. As a result, empty frames will pass that source by even though data is waiting to be sent. Those systems do not, therefore, contain all the limitations of the asserted claims, in particular the requirements of claims 1 and 3 that data "from any of said sources is written into any available empty payload field of any of said frames," or the requirement in claim 4 for an inserting means for inserting packets "into any empty payload field of any of said frames available to said inserting means." Exhibit A, claims 1, 3, and 4.

Finally, although defendants raised generic invalidity counterclaims and defenses based on 35 U.S.C. § 112, and although Cisco specifically expressed an intent to pursue a defense that the claims of the '306 patent are invalid for lack of enablement, Dr. Acampora presented no opinions in either of his reports or during his deposition that a person of ordinary skill in the art could not practice the claimed invention without undue experimentation. Since defendants have not identified any other evidence supporting their enablement counterclaim and defense, Telcordia should be granted summary determination that the claims are not invalid for lack of enablement.

IV.   ARGUMENT

Summary judgment "shall be rendered forthwith if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56(c). Telcordia is entitled to summary judgment on defendants' invalidity claims and defenses based on anticipation and lack of enablement because the proferred evidence, including the expected expert testimony as defined and limited by the disclosures in the expert reports, demonstrates that the defendants cannot prove by clear and convincing evidence that the '306 patent is invalid as anticipated or from lack of enablement.

A.   Telcordia Is Entitled To Summary Judgment That The Asserted Claims of the '306 Patent Are Not Invalid As Anticipated

Defendants are asserting that a number of printed publications and patents anticipate the asserted claims of the '306 patent. Those assertions require defendants to prove, by clear and convincing evidence, that "the invention was patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent," or "patented or described in a printed publication in this or a foreign country more than one year prior to the date of the application for patent in the United States." 35 U.S.C. §§ 102(a) and (b). Anticipation requires that a single prior art reference discloses each and every limitation of the claimed invention. *Schering Corp. v. Geneva Pharmaceuticals*, 339 F.3d 1373, 1379-80 (Fed. Cir. 2003). Defendants must also prove that the prior art reference describes the claimed invention sufficiently to have placed it in possession of a person of ordinary skill in the field of the invention, and be "enabling." *Helifix Ltd. v. Blok-Lok, Ltd.*, 208 F.3d 1339, 1346 (Fed. Cir. 2000).

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Although defendants point to a large number of supposedly anticipating references, their expert admitted that most of them do not contain a description of each element of the asserted claims. The arguments with respect to the other references rely on an improper application of the basic law of anticipation or inaccurate portrayals of the references' disclosure.

1. Defendants Have Admitted That Most Of The References Do Not Anticipate The Claims Under The Court's Claim Construction

In his initial report, submitted after the Court's claim construction order, Dr. Acampora opined that eleven separate references anticipated the asserted '306 patent claims. But after Telcordia's expert went through the trouble of analyzing the basis for those opinions and provided a response in his rebuttal report, Dr. Acampora finally acknowledged that most of those references could not anticipate under the Court's claim construction.

Thus, despite his initial opinions of anticipation, in his reply report Dr. Acampora admitted that:

- The Turner reference does not anticipate: "Dr. Prucnal states that, in Turner, 'the sources do not each insert data into the generated bitstream via its own tributary, as the Court construed this limitation to require.' Prucnal Report at 12. *I agree that, under the Court's claim construction, Turner does not show this limitation . . . .*" Exhibit D at 7 (emphasis added).

- The Takeuchi patent does not anticipate: "Dr. Prucnal states that 'each of the plurality of sources in Takeuchi does not access the transmission bit stream via its own tributary.' Prucnal Report at 15. *I agree that, under the Court's claim construction, Takeuchi does not show this limitation . . . .*" Exhibit D at 8 (emphasis added).

- The Beckner-Minzer tutorial on ATDM does not anticipate: "Dr. Prucnal states that the Beckner Tutorial does not show 'a payload field that is empty of source data, but including bit signals of some kind, i.e. garbage bits' or 'replacing the empty payload field' with packet date from a single source' Prucnal Report at 17. *I agree that, under the Court's claim construction, the Beckner Tutorial does not show these limitations . . . ."* Exhibit D at 9 (emphasis added).

- The Beckner-Minzer article on multiplexing structures does not anticipate: "Dr. Prucnal states that the Multiplexing article does not show 'empty payload fields containing garbage bits' or 'replacing the empty payload field with packet data from a single source.' Prucnal Report at 19. *I agree that, under the Court's claim construction, the Multiplexing article does not show these limitations . . . ."* Exhibit D at 10 (emphasis added).

- The Dixon Doll STATDM reference does not anticipate: "Dr. Prucnal states that 'Dixon Doll is not replacing empty payload fields in the frames.' Prucnal Report at 22. *I agree that, under the Court's claim construction, Dixon Doll does not show this limitation . . . ."* Exhibit D at 11 (emphasis added).

- The Luderer reference does not anticipate: "Dr. Prucnal states that 'access of the sources to Luderer's bit stream is not via its own tributary.' Prucnal Report at 25. *I agree that, under the Court's claim construction, Luderer does not show this limitation . . . ."* Exhibit D at 12 (emphasis added).

- The Weinstein reference does not anticipate: "Dr. Prucnal states that Weinstein does not show 'replacing the empty payload field' with packet data from a single source.' Prucnal Report at 28. *I agree that, under the Court's claim*

construction, Weinstein does not show this limitation . . . ." Exhibit D at 13 (emphasis added).

- The Baran reference does not anticipate, for several reasons: First, "Dr. Prucnal states that 'Baran's transceiver 94 (Fig. 8) does not generate a sequence [train] of frames containing frame timing information and an empty payload field.' *I agree that, under the Court's claim construction, Baran does not show this limitation . . . .*" Exhibit D at 14 (emphasis added). Second, "Dr. Prucnal states that 'each of the plurality of sources in Baran does not access the transmission bit stream via its own tributary.' Prucnal Report at 30. *I agree that, under the Court's claim construction, Baran does not show this limitation . . . .*" Exhibit D at 14 (emphasis added).

Accordingly, the defendants' expert agrees that the following references cannot anticipate the asserted claims of the '306 patent under the Court's claim constructions: Turner, Takeuchi, the two Beckner-Minzer references, Dixon Doll, Luderer, Weinstein, and Baran. There can be no genuine issue of material fact regarding anticipation by those references and Telcordia is entitled to judgment as a matter of law.

2.   The Abandoned References Lack Other Claim Limitations

In addition to the claim elements that Dr. Acampora admits are lacking from the eight references, Dr. Prucnal's expert report also identified a host of additional reasons why each of those references fails to describe each of the limitations set forth in the asserted claims. Exhibit C at 12-31. Those additional reasons provide further support for granting Telcordia's summary judgment motion that the eight references do not anticipate the asserted claims of the '306 patent.

3.   The Boehm-Ching-Say Reference Does Not Anticipate The Asserted Claims

In order to opine that the Boehm-Ching-Say reference anticipates the claims of the '306 patent, Dr. Acampora goes outside the reference and relies on the teachings of another separate reference, the Beckner Minzer Tutorial on ADTM. Because it is improper to combine separate references to build the claimed invention in an anticipation argument, any anticipation defense or claim based on the Boehm-Ching-Say reference must necessarily fail, regardless of the claim construction.

"Invalidity by anticipation requires that the *four corners of a single, prior art document* describe every element of the claimed invention, either expressly or inherently, such that a person or ordinary skill in the art could practice the invention without undue experimentation." *Atlas Power Co. v. Ireco Inc.*, 190 F.3d 1342, 1347 (Fed. Cir. 1999) (emphasis added). "There must be no differences between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention." *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565, 1576 (Fed. Cir. 1991) (finding that resort to another reference in an anticipation analysis is "necessarily of limited scope and probative value, for a finding of anticipation requires that all aspects of the claimed invention were already described in a single reference: a finding that is not supportable if it is necessary to prove facts beyond those disclosed in the reference in order to meet the claim limitations."); *see also Studiengesellschaft Kohle, mbH v. Dar Indus., Inc.*, 726 F.2d 724, 727 (Fed. Cir. 1984) (although additional references may serve to reveal what a reference would have meant to a person of ordinary skill, it is error to build anticipation on a combination of the references). "If it is necessary to reach beyond the boundaries of a single reference to provide missing disclosure of the claimed invention, the proper ground is not § 102 anticipation, but § 103 obviousness." *Scripps Clinic,*

927 F.2d at 1577; *see also Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1267 (Fed. Cir. 1991) ("When more than one reference is required to establish unpatentability of the claimed invention anticipation under § 102 can not be found . . .").

Dr. Acampora admits in his initial expert report that the Boehm-Ching-Say reference does not itself include a description of all the elements of the asserted claims, arguing instead that the Boehm-Ching-Say reference incorporates by reference the additional disclosures found in the Beckner Minzer Tutorial: "With respect to the other limitations of asserted claims 1, 3, and 4, it is my opinion that the Boehm-Ching-Say Submission teaches those limitations by its incorporation of the Beckner-Minzer Tutorial." Exhibit B at 40. Likewise, responding to Dr. Prucnal's expert report, in which Dr. Prucnal pointed out how the Boehm-Ching-Say reference lacked a number of the elements of the asserted claims, Dr. Acampora insists that "the Beckner Minzer Tutorial is incorporated into the Boehm-Ching-Say submission." Exhibit D at 10. But the Beckner Minzer Tutorial was not "incorporated by reference"; it was merely mentioned, as were other references throughout the paper. That does not rise to the level of incorporating another document by reference and, as a result, the two references cannot be considered a single anticipating reference, even assuming all the elements were described in that combination.

In certain circumstances, "[m]aterial not explicitly contained in the single, prior art document may still be considered for purposes of anticipation if that material is incorporated by reference into the document," *see, e.g., Advanced Display Sys., Inc. v. Kent State Univ.*, 212 F.3d 1272, 1282 (Fed. Cir. 2000), but those circumstances are not present here. In order for one document to incorporate the teachings of another document by reference, the first document cannot simply refer to another document. "[M]ere *reference* to another application, or patent, or publication is not an *incorporation* of anything . . . ." *In re Seversky*, 474 F.2d 671, 674

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(C.C.P.A. 1973) (emphasis in original). Instead, the first document must cite "such material in a manner that makes clear that the material is effectively part of the host document as if it were explicitly contained therein." *Advanced Display*, 212 F.3d at 1282. "To incorporate material by reference, the host document must identify with detailed particularity what specific material it incorporates and clearly indicate where that material is found in the various documents." *Id.* And even if a first document incorporates one part of a second document, that does not mean all portions of that second document become part of the first document so that the combined disclosures can be considered for purposes of anticipation. *In re Saunders*, 444 F.2d 599, 602-03 (C.C.P.A. 1971) (first patent's statement that "the above described siloxane-oxyalkylene block copolymers can be prepared in accordance with the procedures described and claimed in" the second patent does not incorporate by reference a specific working example in that second patent using materials that would not be within the class of "above described siloxane-oxyalkylene block copolymers").[3] Moreover, the issue of whether one document incorporates by reference a second document is a matter of law. *Advanced Display*, 212 F.3d at 1283 (citing *Quaker City Gear Works, Inc. v. Skil Corp.*, 747 F.2d 1446, 1453-54 (Fed. Cir. 1984).

Given those stringent requirements, it is clear that the Beckner Minzer Tutorial is not "incorporated by reference" into the Boehm-Ching-Say reference. Rather, it is merely mentioned in passing. The Boehm-Ching-Say reference states:

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[3] That stringent standard is consistent with practice before the U.S. Patent and Trademark Office, which requires not only that the first patent identify the incorporated material in detail and where it can be found in the second document, but also requires some form of the words "incorporate" and "reference" to be used when the second document is mentioned. *See* 37 C.F.R. § 1.57(b) ("an incorporation by reference must be set forth in the [patent] specification and must: (1) Express a clear intent to incorporate by reference by using the root words "incorporate(e)" and "reference" (*e.g.*, "incorporate by reference") . . . .").

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> For broadband services previous contributions have indicated that packet-mode techniques are a way to achieve flexibility at rates lower than the broadband channel rate (T1D1.1/85-113, T1D1.1/85-149). The modular approach described here is necessary to construct channels at rates higher than the STS-1 rate for basic transport of broadband services and to facilitate the introduction of other undefined services.

Exhibit K at 4. The second reference in the parenthetical—T1D1.1/85-149—is the Beckner Minzer Tutorial. Exhibit I at 1. But there is no indication in the text of the Boehm-Ching-Say reference that the disclosures in the Beckner Minzer Tutorial are actually being incorporated as if completely rewritten. Clearly the words "incorporate" and "reference" are not used in connection with the brief mention of the Beckner Minzer Tutorial. The text merely observes broadly that two prior documents have discussed certain packet-mode techniques. The text does not, as it must, indicate that it is relying on the specific features, protocols, data structures, and steps described in one of those two documents, along with an indication of where in that earlier document such descriptions can be found. Indeed, it is not even clear whether the sentence preceding the citation describes the disclosure of the Beckner Minzer Tutorial or a combination of that document and the other cited document.

Further, the Boehm-Ching-Say reference cites to more than ten other documents in the text, and lists another three documents (although not the Beckner Minzer Tutorial) as "References" at the end. Under Dr. Acampora's "incorporation by reference" standard, one must assume that all those other documents are deemed part of the Boehm-Ching-Say reference as well. Adopting Dr. Acampora's approach would transform anticipation analysis as applied to many, if not all, scientific articles, since they typically reference many other documents in similar fashion.

The disclosures in the Beckner Minzer Tutorial thus—as a matter of law—cannot be and were not "incorporated" into the disclosure of the Boehm-Ching-Say reference for purposes of

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anticipation. As a result, there is no dispute that the Boehm-Ching-Say reference is lacking a disclosure of several elements in the asserted claims, and therefore cannot anticipate those claims. There is no genuine issue of material fact and Telcordia is entitled to judgment as a matter of law on defendants' anticipation defense and claim with respect to the Boehm-Ching-Say reference.[4]

4.   The Limb and Flores Reference Regarding FasNet Does Not Anticipate The Asserted Claims

Defendants rely on the Limb and Flores reference as supposedly anticipating, but that reference fails to describe all the elements of the asserted claims. This is self-evident from the reference itself, and further bolstered by the testimony of Dr. Mark Garrett, who worked on the system when it was being developed.

The Limb and Flores reference describes a token-passing, local area network known as FasNet. According to the Limb and Flores reference, two or more stations are connected by two unidirectional lines. "One line passes all stations carrying traffic in one direction and the other line passes all stations carrying traffic in the other direction." Exhibit E at 1416. Each station communicates with other stations by writing information into free slots traveling on the lines. Exhibit E at 1418:

> The head station, S_1, initiates a cycle on line A. After a cycle has been initiated,
> each active station on the line with packets destined in the right direction is
> allowed to access the line for one slot. To do this, each station monitors the line.

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[4] In addition to that fundamental legal flaw in Dr. Acampora's analysis, Dr. Prucnal's expert report also pointed out that even the impermissible combination did not disclose all the elements of the asserted claims. Exhibit C at 21. If defendants are entitled to proceed with their anticipation claim based ostensibly on the Boehm-Ching-Say reference as supplemented by the Beckner Minzer Tutorial, or even if defendants rely solely on obviousness contentions under 35 U.S.C. § 103 with respect to that combination, Telcordia will present expert testimony at trial that rebuts those contentions.

When it senses the line idle, it seizes the line for one slot. It has to wait for a new cycle to be initiated before it attempts to access the line again.

Thus, in order to keep one station from taking up all the available slots or "frames," the FasNet protocol limits each station to a certain number of slots per cycle. *Id.; see also* Exhibit E at 1438 ("Upon reading a start-of-cycle, a station may transmit a prespecified number of packets in the first available empty slots."). That means an upstream station with information available to be placed on the line will insert all its waiting packets, up to a prespecified number, into empty slots, and then must permit all subsequent empty slots to pass by unfilled to downstream stations even if it that upstream station has more high priority information ready to be placed on the line. Only when that upstream station receives an end of cycle signal will it once again be permitted to fill empty slots with its waiting information. Exhibit E at 1438 ("When all stations have transmitted their [predetermined number of] packets, a signal is sent on the return line to inform the head station to start a new cycle.").

That description of the FasNet system was confirmed by Dr. Mark Garrett, who worked on the system after the Linb and Flores reference was prepared:

> So if a slot is empty, it may be
> available to other stations to send a packet, and
> whether it can be used by that station depends
> upon things in the protocol such as the
> allocation of the number of packets of that type
> that that station can send and how many it has
> sent in that cycle. Right, so, if the, yeah, if
> the station has sent all the packets it is
> allowed to of that type in that cycle, then that
> station, even though it has data of that type,
> must leave that slot empty.

Exhibit P, 6/1/06 Garrett depo. at 141:24-142:9. When questioned later by Cisco's counsel, Dr. Garrett specifically pointed out how the FasNet system differed from the invention in the '306 patent:

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> Q. You worked on Fasnet, and you've studied the '306 patent for determining whether it covers ATM/SONET. Based on your analysis, forget your lawyer communications, can you identify any difference between Fasnet and the '306 patent claims?
>
> > [objection omitted]
>
> A. So to answer that question I would have to say I'm not an expert witness, I don't have enough training or familiarity with these technologies to answer the question, you know, in any kind of definitive way. I can only answer it based on my level of knowledge. And to the extent that I have thought about it.
>
> > And the one difference that I see that stands out is that I believe the claims say something about placing packetized data into any free something. And in Fasnet, as we discussed earlier, stations can't always send data into an empty slot, they have to do so according to the Fasnet protocol, and often empty slots remain empty.

Exhibit P, 6/1/06 Garrett depo. at 233:15-234:18.

The evidence is undisputed that the FasNet system did not allow a particular source to fill any available slot with information that was ready to transmit. Instead, a source with waiting information was required to let empty slots pass by regardless of the priority of the waiting information. As a result, the FasNet system does not satisfy the claim requirements of claims 1 and 3 that data "from any of said sources is written into any available empty payload field of any of said frames," or the requirement in claim 4 for an inserting means for inserting packets "into any empty payload field of any of said frames available to said inserting means." Exhibit A, claims 1, 3, and 4.

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Because the Limb and Flores reference fails to disclose each and every element of the asserted claims, Telcordia is entitled to summary judgment of no anticipation based on that reference.[5]

5.   The Budrikis Reference Does Not Anticipate The Asserted Claims

The system proposed in the Budrikis reference is similar in many ways to FasNet. Indeed, the Budrikis reference admittedly owes "a particular debt to Fasnet." Exhibit F at 1502. As a result, the Budrikis lacks a key limitation of the asserted claims because it works in a very similar way as the FasNet system, and it does not anticipate those claims.

Budrikis discloses a switch architecture that uses a pair of oppositely-directed shift registers to transport packetized data between a series of access units (which the article abbreviates as "AUs") and a central controller. Exhibit F at 1500. The system is intended to support both circuit- and packet-switched connections, which allows it to handle the more constant data flow of voice communications as well as "bursty" data traffic in computer network communication. *Id.*

Much like the FasNet system, the Budrikis system allows multiple access units to send packets onto a shared communication path. The structure of those packets is set forth in Figure 5, and they include the following fields: BUSY, RQST, SNDR, RCVR, DATA, and SYNC. Exhibit F at 1507. The process for using those fields to direct data traffic is described in the "Data communication" section of the article (Section 3.2.1):

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[5] For purposes of this motion, Telcordia is focusing on only one key claim limitation that is not present in the Limb and Flores reference. Dr. Prucnal's report also identified several other deficiencies in the Limb and Flores reference, Exhibit C at 6-8, and if defendants are permitted to raise anticipation based on this reference at trial, Telcordia will present expert testimony regarding additional deficiencies in the Limb and Flores reference.

> Suppose that an AU has to communicate to another AU of higher address. It must send a message, or packet(s), on the forward channel. To do so, the dispatch processor of the AU will follow the data dispatch routine of Fig. 6. This can be understood more easily with the help of the state diagram of Fig. 7. . . .
>
> When idle, the dispatcher is normally in the "Go" state and monitors the sending buffer (for the forward channel), checking whether it contains a packet for transmission. If it does, it reads the BUSY field of the next block on the forward channel and at the same time writes a "ONE" in that field so as to seize the slot, should it be available. If it is not, *i.e.*, BUSY was already "ONE," then it will write "ONE" the next RQST field on the reverse channel and wait for the next BUSY field on the forward channel. It will repeat reading and writing of BUSY on the forward channel and sending RQSTs on the reverse channel until a "ZERO" BUSY occurs. It will then write in the related SNDR, RCVR, and DATA fields, so dispatching a packet.

Exhibit F at 1508. Like the FasNet system, the Budrikis system then has a method of forcing an

access unit to cede priority to other access units located further down the line even if it has more

data to send. Each access unit is limited to a certain number, "*M*", of contiguous packets before

it has to stop sending data and must instead allow empty packets to pass by until other access

units stop requesting access:

> Having sent a packet, the dispatcher moves to the 'One packet sent' state. If the sending buffer has at that moment one or more further packets for dispatch, then the dispatcher will behave exactly as in the "Go" state and send off the next packet, thereby moving to the "Two packets sent" state. But if there is no packet in the sending buffer on entry to the "One packet sent" state, then the dispatcher will proceed to the "Half" state. It will remain there until the next "ZERO" is written in the RQST fields on the reverse channel, whereupon it will revert to the "Go" state. Similar condition apply on entry to the "Two packets sent" and further states, until the dispatcher has sent in a contiguous sequence *M* packets and entered the "*M* packets sent" state. From this it must proceed unconditionally to "Halt."

Exhibit F at 1508-09.

Because the Budrikis system works similarly to the FasNet system, *i.e.* it causes data

sources to stop putting waiting data into available empty payloads, it also fails to disclose the

same claim elements from the asserted claims, namely the requirements of claims 1 and 3 that

data "from any of said sources is written into any available empty payload field of any of said

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frames," or the requirement in claim 4 for an inserting means for inserting packets "into any empty payload field of any of said frames available to said inserting means." Exhibit A, claims 1, 3, and 4. Accordingly, there is no genuine issue of material fact and Telcordia is entitled to judgment as a matter of law that the Budrikis reference does not anticipate the asserted claims.[6]

B.   Telcordia Is Entitled To Summary Judgment That The Asserted Claims Of The '306 Patent Are Not Invalid For Lack Of Enablement

Although defendants raised defenses and counterclaims against the '306 patent based vaguely on 35 U.S.C. § 112, and although Cisco expressed an intention that the asserted claims were invalid for lack of enablement, it is now clear that defendants never had a viable defense based on lack of enablement and that Telcordia is entitled to summary judgment on defendants' defenses and counterclaims with respect to any non-enablement contention.

According to 35 U.S.C. § 112, first paragraph, "[t]he specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same . . . ." To prevail on their enablement claim, defendants must establish that a person of ordinary skill could not practice the invention without "undue experimentation." *Genentech, Inc. v. Novo Nordisk A/S*, 108 F.3d 1361, 1365 (Fed. Cir. 1997). Although the defendants are the non-movants with respect to this summary judgment motion and the Court should construe factual disputes in their favor, the Court must also "view the evidence presented through the prism of the substantive evidentiary

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[6] As with the other references, for purposes of this motion Telcordia is focusing only on a single deficiency in the Budrikis reference. Dr. Prucnal's report expresses his opinion that there are additional reasons why the Budrikis reference does not anticipate, and if defendants are permitted to pursue their anticipation claims at trial, Telcordia intends to present expert testimony on those additional deficiencies.

burden" that would inhere at trial. *Johns Hopkins Univ. v. Cellpro, Inc.*, 152 F.3d 1342, 1359 (Fed. Cir. 1998) (quoting *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242 (1986)). That burden rests with defendants, who must prove by clear and convincing evidence facts establishing a lack of enablement. *Johns Hopkins, supra*, citing *Morton Int'l, Inc. v. Cardinal Chem. Co.*, 5 F.3d 1464, 1469 (Fed. Cir. 1993) and 35 U.S.C. § 282.

Both defendants raised generic invalidity defenses in their answers and counterclaims. Neither explained the defenses, and only Cisco actually mentioned § 112 specifically, although it did not specify what portion of § 112 it was relying on. *See* D.I.33 (Cisco Answer to Amended Comp. and Counterclaim at ¶¶ 35 and 50, D.I.38 (Lucent Answer to Amended Comp. and Counterclaim at ¶¶ 35 and 106-07). In responses to interrogatories, Cisco attempted to state a enablement defense but did little more than throw out the idea of a defense with no supporting facts or any description of the allegedly undue experimentation that would be required. Exhibit Q (Cisco's Second Supplemental Response to Interrogatory No. 9). Lucent said nothing about enablement in its responses to interrogatories. Exhibit R (Lucent's Supplemental Response to Interrogatory No. 10).

Finally, when defendants were required to disclose in their expert reports all the expert opinions on which they intended to rely at trial, nothing was forthcoming. The defendants' expert did not opine in his reports that the asserted claims of the '306 patent were not enabled and did not offer any opinion in his deposition on non-enablement of those claims.

The '306 patent is presumed valid, *see* 35 U.S.C. § 282, so defendants cannot rest an enablement defense solely on vague statements unsupported by any expert opinion or other evidence as to the amount of experimentation a person of ordinary skill in the art would need to practice the claimed invention or how that amount of experimentation compares to normal

experimentation expected in the field of the invention. *See, e.g., Koito Mfr'g Co. v. Turn-Key-Tech, LLC*, 381 F.3d 1142, 1155 (Fed. Cir. 2004) (granting JMOL that jury verdict was not supported by evidence where defendant "produced no evidence that the trial and error required to practice the claimed invention would be unduly laborious or beyond the reach of one of ordinary skill in the art"). Since defendants have not backed up their initial contentions regarding an alleged lack of enablement with any facts, evidence, or opinions supporting that defense, there is no genuine issue of material fact and Telcordia is entitled to judgment as a matter of law, especially in light of the clear and convincing evidence burden defendants would have to meet in order to prevail. Accordingly, the Court should grant summary judgment in Telcordia's favor on any defense or claim that the '306 patent is invalid for lack of enablement.

V.   CONCLUSION

For the reasons stated above, Telcordia respectfully requests that the Court grant summary judgment that the asserted '306 patent claims are not invalid as anticipated or from lack of enablement.

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Dated: October 5, 2006

CERTIFICATE OF SERVICE

I hereby certify that on the 13th day of October, 2006, the attached **REDACTED**

PUBLIC VERSION OF OPENING BRIEF OF PLAINTIFF TELCORDIA

TECHNOLOGIES, INC. IN SUPPORT OF ITS MOTION FOR PARTIAL SUMMARY

JUDGMENT THAT THE '306 PATENT IS NOT INVALID AS ANTICIPATED OR FOR

LACK OF ENABLEMENT was served upon the below-named counsel of record at the address

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